

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CARMEN I. HUBER, TITO E. HUBER
and NICHOLAS CAVIRIS

Appeal No. 97-0598
Application 08/322,670¹

ON BRIEF

Before MARTIN, FLEMING and LALL, Administrative Patent Judges.
LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of all pending claims 5 through 8, 11 through 14,

¹ Application for patent filed October 13, 1994. According to the appellants, the application is a division of Application 08/059,766, filed May 11, 1993, now U.S. Patent 5,421,396, issued June 6, 1995.

16, 18 and 19.

The disclosed invention relates to a charge transfer plate of an electronic device, through which electrical signals are simultaneously transmitted. In order to improve spatial resolution, the charge transfer density of the plate is substantially increased above 900,000 signal transmitting pins per square centimeter employing the fabrication method disclosed. The diameter of the signal transmitting pins and the spacing therebetween are dimensioned as low as 20 nanometers when embedded in an electrical insulating matrix. The charge transfer plate is used in many embodiments of electrical equipment such as shown in a spatial light modulator of figure 1, an electrical multifeedthrough assembly of figure 5, and hermetically sealed electrical vacuum chamber of figure 7.

Representative claims 5, 16 and 18 are reproduced as follows:

5. In an electronic device having a high density charge transfer plate made of an electrically insulating material and an array of electrically conductive pins embedded therein, the improvement residing in said pins being spaced from each other and having diameters dimensionally providing a cross-sectional charge transfer density substantially exceeding 900,000 pins per square centimeter.

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16. In an electronic device having a high density charge transfer plate made of an electrically insulating material and an array of electrically conductive pins embedded therein, the improvement residing in spacing between said pins being as low as 20 nanometers and said electrically insulating material being alumina while the pins are made of indium.

18. In an electronic device, a charge transfer plate through which electrical signals are simultaneously transmitted, including an electrically insulating matrix and an array of electrically conductive wires embedded therein, a pair of insulator bodies interfaced with said electrically insulating matrix, electrically conductive inputs interfaced between the insulator bodies and the electrically insulating matrix in spaced relation to each other, and adjacent sets of coplanar circuit chips embedded in said insulator bodies operatively interconnected by the charge transfer plate.

The references relied on by the examiner are:

Galaj et al (Galaj)	4,946,592	Aug. 7,
1990		
Suzuki	5,087,278	Feb. 11, 1992

No art rejection is on appeal.

Claims 5 through 8, 11 through 14, 16, 18 and 19 stand rejected under 35 U.S.C. § 112, first paragraph.

Reference is made to Appellants' briefs² and the Examiner's answer³ for their respective positions.

² A reply brief was filed on July 17, 1996 [paper no. 15] and was entered into the record.

³ A supplemental answer was mailed on Aug. 19, 1996 [paper no. 16].

OPINION

We have carefully considered the entire record before us, and we will reverse the rejection of claims 5 through 8, 11 through 14, 16, 18 and 19 under 35 U.S.C. § 112, first paragraph. The Examiner has failed to set forth a prima facie case for the rejection, which is entirely based on the lack of enablement.

An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contains sufficient information regarding the subject matter of the appealed claims as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In order to make a rejection, the Examiner has the

initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. See In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). As stated by the court,

it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent

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with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure.

Marzocchi, 439 F.2d at 224, 169 USPQ at 370.

Once the Examiner has established a reasonable basis to question the enablement provided for the claimed invention, the burden falls on Appellants to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would be able to make and use the claimed invention using the disclosure as a guide. See In re Brandstadter, 484 F.2d 1395, 1406, 179 USPQ 286, 294 (CCPA 1973). In making the determination of enablement, the Examiner shall consider the original disclosure and all evidence in the record, weighing

evidence that supports enablement⁴ against evidence that the

⁴The appellant may attempt to overcome the examiner's doubt about enablement by pointing to details in the disclosure but may not add new matter. The appellant may also submit factual affidavits under 37 CFR § 1.132 or cite references to show what one skilled in the art knew at the

specification is not enabling.

Thus, the dispositive issue is whether the Appellants' disclosure, considering the level of ordinary skill in the art as of the date of Appellants' application, would have enabled a person of such skill to make and use the Appellants' invention without undue experimentation. The threshold step in resolving this issue as set forth supra is to determine whether the Examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement. This the Examiner has not done.

We take the representative claim 16. The Examiner objects to the specification under 35 U.S.C. § 112, first paragraph as failing to provide an enabling disclosure, and rejects all the pending claims based on this objection. The Examiner contends that Appellants have not shown how to make a sintered alumina structure with parallel or spaced metal filled pores in the 20-200 nanometer range [answer, page 3 and the unnumbered page preceding it]. Appellants argue:

The only reason of record to doubt the objective truth of such statements in the specification is the Examiner's

time of filing the application.

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speculation set forth on page 2 in the first Office action of July 10, 1995 that "there could be tunneling of current which would effectively short all pins together and there alone make the device inoperative." Obviously, the Examiner's latter quoted speculation questions the operability or utility of the described invention rather than the sufficiency of its disclosure which includes the presumptively accurate description on pages 4-6 of the specification relating to [the] details of a manufacturing procedure utilized to achieve the specified dimensional limitations ... to which claims 7, 8 and 16 are limited. [Brief, page 4.]

To support his position on non-enablement, the Examiner states that "[r]eferences Galaj '592 and Suzuki '278 disclose sintered alumina with micropores, however ... it is not evident from ... these references or from appellant's [sic] disclosure how to enable a charge transfer structure ... with parallel or 'spaced' pores of 20-200 nanometers in diameter." [Answer, unnumbered page preceding page 3].

Appellants, in their reply brief, page 2, argue that neither the first Office action nor the final rejection even mentions such cited references, and, accordingly, no use of the now-cited references be made for support of the rejection.

We agree with Appellants. To admit these references as evidence in the record without giving Appellants an

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opportunity to amend the claims around them would be unfair.
Therefore, we

consider the rejection as it was presented in the final
rejection, i.e., without the benefit of any newly offered
evidence.

We have studied the arguments offered by the Examiner in support of the enablement rejection and conclude that the Examiner has not met the burden of establishing a prima facie case. Appellants have disclosed, figure 4 and pages 4 to 6, the process of manufacture of the claimed charge transfer plate having the spacing and the pin diameter of as low as 20 nanometers, resulting in a density of 10 billion pins per square centimeter of plate area. Incidentally, we note here that a U. S. Patent, 5,421,396, has been granted on the process itself covered by the parent application of this application. The process disclosed is presumed to be valid unless there is factual evidence which puts its validity in question. Here, the Examiner has not offered any objective and factual evidence to test the validity of the process of

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making the claimed charge transfer plate. The only argument presented by the Examiner in the record is that quoted by Appellants from the first Office action, which states that "there could be tunneling of the current which would effectively short all pins together and there alone make the device inoperative." [Brief, page 4.] We find that this is a mere speculation. This allegation alone is not sufficient to create a doubt about the validity of the disclosed process by which the claimed charge transfer plate was manufactured. Therefore, we reverse the rejection of claim 16 under 35 U.S.C. § 112, first paragraph.

Since all the other independent claims, namely, 5, 11, 18 and 19 were also rejected under the enablement requirement for the same reason as claim 16, we reverse the rejection of claims 5, 11, 18 and 19, and of the dependent claims 6 through 8 and 12 through 14 for the same reason.

In conclusion, we reverse the rejection of claims 5 through 8, 11 through 14, 16, 18 and 19 under 35 U.S.C. § 112, first paragraph for lack of enablement.

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DECISION

The decision of the Examiner rejecting claims 5 through 8, 11 through 14, 16, 18 and 19 under 35 U.S.C. § 112, first paragraph is reversed.

REVERSED

JOHN C. MARTIN

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Administrative Patent Judge)	
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)	BOARD OF PATENT
MICHAEL R. FLEMING)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
PARSHOTAM S. LALL)	
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